

Work Order ID 66998

Thursday, March 03, 2011 10:17:44 AM

Page 1

Item ID: D3290-041

Accept

Revision ID:

Item Name: Replacement Window Assembly

Start Date: 3/3/2011 Start Qty: 6.00

Required Date: 3/7/2011 Req'd Qty: 6.00

Reference:

Approvals:

Process Plan:

Date: 11-03-3

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3290	DEO Rev C1								

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3290 (use prog. for D3290-1)

Dwg Rev: 5Prog Rev: 2

2-Deburr if necessary

11-03-3

8

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

11-03-3

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

11 03 03 8

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 66998

Thursday, March 03, 2011 10:17:44 AM



Page 2

Item ID: D3290-041	Accept		Setup	Start	
Revision ID:				Stop	
Item Name: Replacement Window Assembly					
Start Date: 3/3/2011	Start Qty: 6.00		Cust Item ID:		
Required Date: 3/7/2011	Req'd Qty: 6.00		Customer:		
Reference:					

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							
140 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M115961 Memo START TIME: 2:45 OVEN TEMPERATURE: 320 FINISH TIME: 3:15	0.00 0.00							
150 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							

⇒ m-k 11/03/03

⇒ m-k 11/03/03

8 φ 11/03/03

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Thursday, March 03, 2011 10:17:44 AM

Item ID: D3290-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Window Assembly

Start Date: 3/3/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 3/7/2011 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



Small Fab

Small Fab

0.00

SAO 11-04-82

C

PTO →

Memo

0.00

Small Fab

Assemble as per Dwg D3290
Clean D3290-041 and place in plastic wrap

170



QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Quality Control

11/4/12 60 6

180



Packaging

Identify as per dwg & Stock Location: _____

0.00

Memo

0.00

Packaging

11/4/12 60 80

Dart Aerospace Ltd

W/O: 66998		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11-04-12	160	stock 2x D3290-1 alone using same B/W	SAD 11-04-12		2	K 11-04-12	

Part No: D3290-041 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 66998

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Page 4

Item ID: D3290-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Window Assembly

Start Date: 3/3/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 3/7/2011 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/4/12

MRF

11-04-12

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, March 03, 2011 10:17:50 AM

Page 1

Work Order ID: 66998

Parent Item: D3290-041

Parent Item Name: Replacement Window Assembly

Start Date: 3/3/2011

Required Date: 3/7/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP B005.05.25 Added Step 11 KJ/JLM
IPP C006.05.09 Ecn 798 EC
IPP Rev:D Now on Waterjet 06-06-16 JLM
IPP rev E rev C dwg 07.09.28 EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6S:063

Purchased

No

100

sf

139.5000

3.75

23.68421

30.



6061-T6.063 Sheet

B11-3-3

Location

Loc Qty

Loc Code

MAT

105.6

116308

28.6

116623

77

116623

MAT21

33.9

113608

33.9

B2126

Manufactured

No

160

f

425.7084

6.5

39



Seal

SAN 11-03-23

Location

Loc Qty

Loc Code

ST405

425.7084211

48285

22.0384211

64918

403.62

39.00

(D2126-0780) cut qty (1) at 78.00" as per dwg
per kit

D3290-3

Manufactured

No

160

Each

2.0000

1

6



Window

Location

Loc Qty

Loc Code

ST221

2

57837

2

67602

WMC

11-04-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	66888
Description: Window Frame		Part Number:	D3290-1
Inspection Dwg: D3290 Rev: C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
29.00	+/-0.030	29.00	6		T HB01	
14.00	+/-0.030	14.00			T	
Ø0.171	+0.005/-0.001	.173	x		V HB02	
1.50	+/-0.030	1.503	x		V	
1.11	+/-0.030	1.111	x		V	
10.10	+/-0.030	10.10			T	
18.50	+/-0.030	18.50	>		T	
0.063	+/-0.010	.061	6		V	
R3.00	+/-0.030	3.00	x		R, G,	
R4.50	+/-0.030	4.50	x		R, G,	
Ø0.257	+0.006/-0.001	.257	↓		V	
13.61	+/-0.030	13.61			T	

Measured by: <i>DB</i>	Audited by: <i>[Signature]</i>	Prototype Approval:	N/A
Date: 11-3-3	Date: 11-03-03	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.09.19	New Issue P/O D3290-041	KJ/JLM	
B	07.07.18	13.61 dimension removed	KJ/JLM	
C	07.09.28	Dimensions update per Dwg Rev C	KJ/EC/DD	
D	09.11.04	Dimension 0.063 was 0.040	KJ <i>[Signature]</i>	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

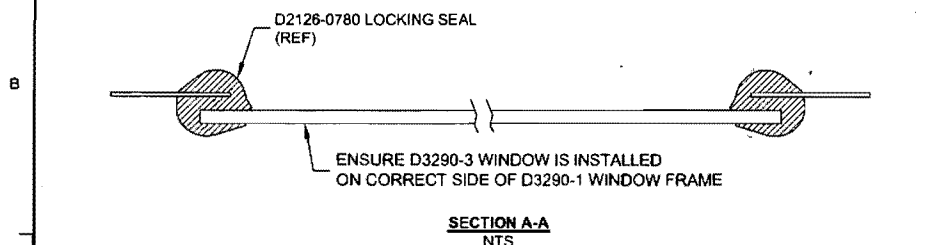
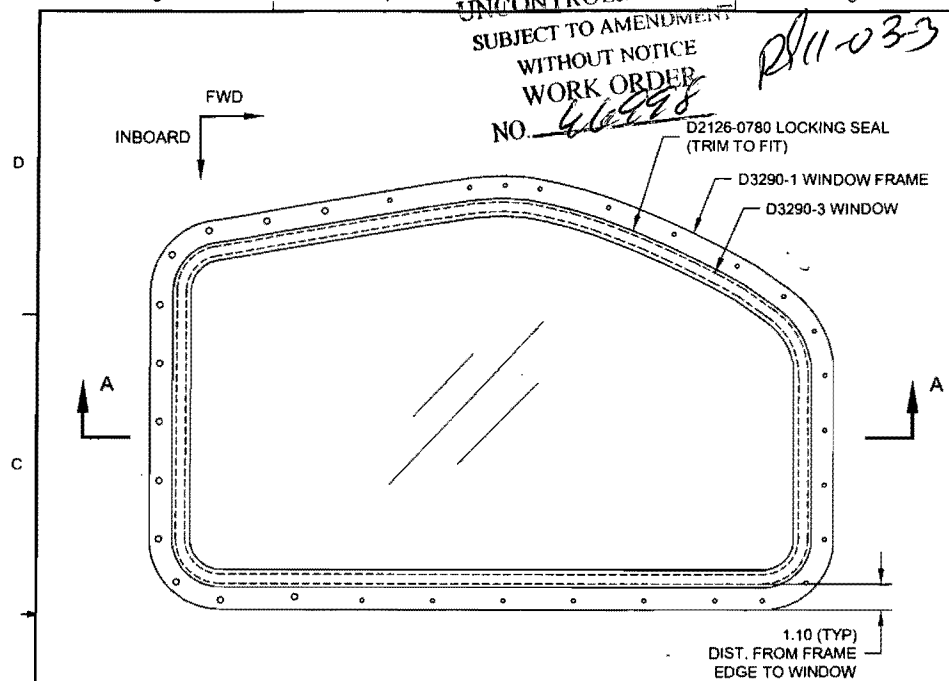
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC-Inspector
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NOTE: Date & initial all entries

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 46998

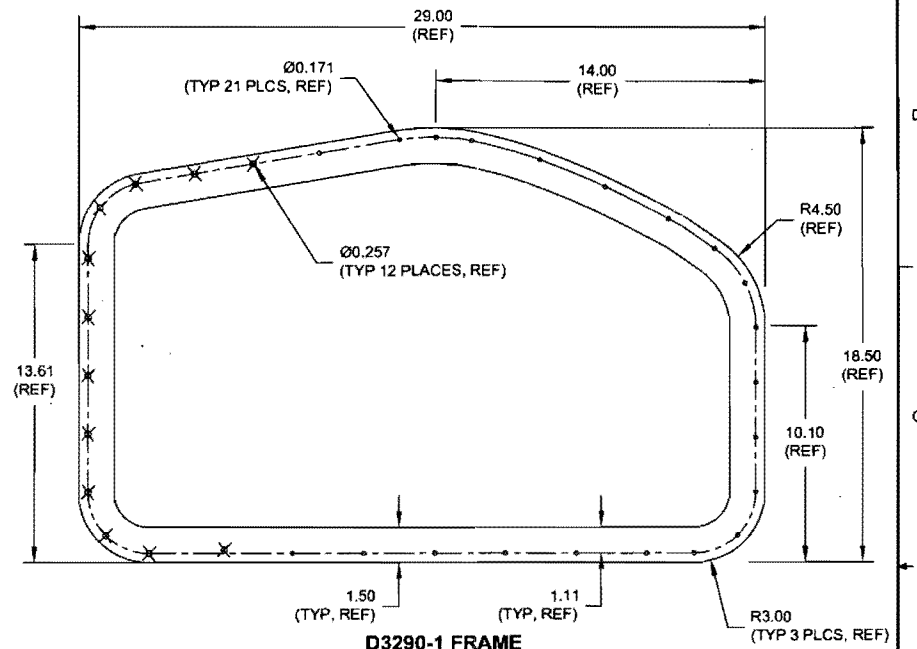
811-033



D3290-041 REPLACEMENT WINDOW ASSEMBLY

D3290-041 NOTES:
1) WEIGHT: 3.66 LBS

GENERAL NOTES:
1) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
2) UNITS: INCHES UNLESS OTHERWISE NOTED



D3290-1 FRAME

D3290-1 NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF. DART SPEC. M6061T6S.040)
OR
5052-H32 ALUMINUM SHEET 0.040 THICK PER AMS-QQ-A-250/8 OR AMS 4016 (REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1 POWDER COAT WHITE (REF. 4.5.3.1) PER DART QSI 005 4.3
- 3) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 4) IDENTIFICATION: IDENTIFY WITH DART P/N "D3290-1" USING FINE POINT PERMANENT INK MARKER
- 5) WEIGHT: 0.47 LBS

RELEASED
07.07.24
DEO ATTACHED

UNDER REVIEW

4/07/24
MIR 07-057
6/10/19

C	UPDATE DIMS PER PAR 188	DC	07.07.24
B	UPDATE MATERIAL PER NCR 029	MB	06.04.20
A	NEW ISSUE	RF	04.06.14
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	07.07.24		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. D3290			
REV. C			
SHEET 1 OF 2			
TITLE			
REPLACEMENT WINDOW ASSEMBLY			
SCALE 1:5			
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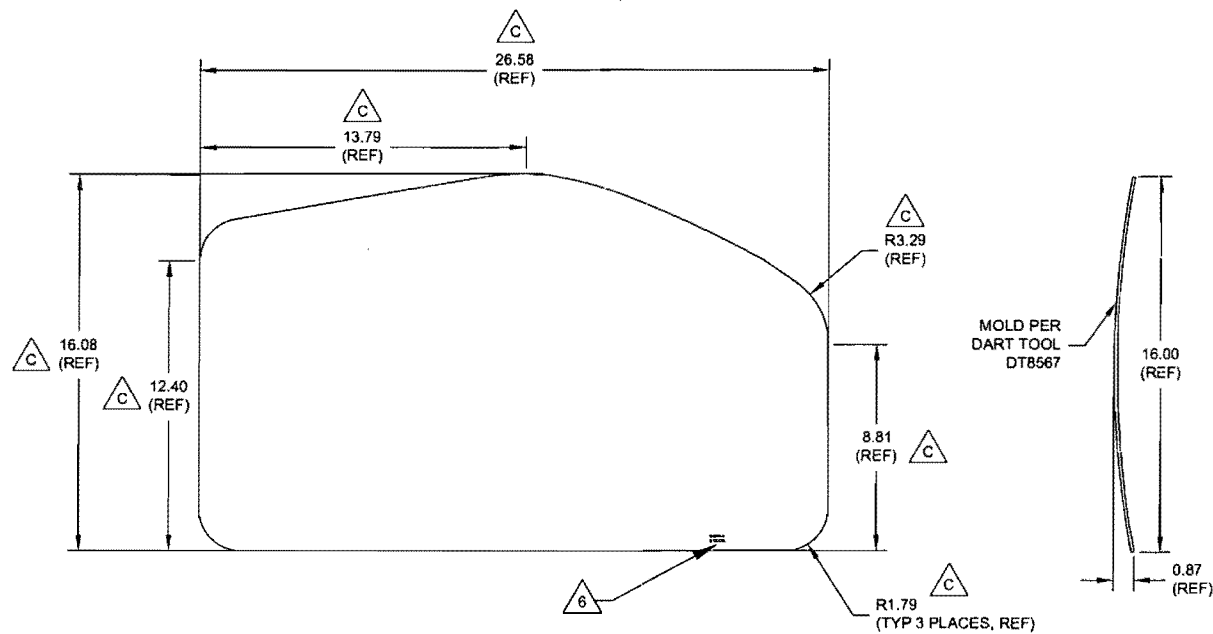
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3290-3 WINDOW

- D3290-3 NOTES:**
- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425
OR PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER
LP-391 TYPE 1 GRADE C, 0.125 THICK
(REF. DART SPEC. M-ACRYLIC-S.125)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) REMOVE SHARP EDGES
 - 6) IDENTIFICATION: ENGRAVE P/N "D3290-3" AND B/N ON LOWER EDGE
USE 0.125" HIGH LETTERS TO MAXIMUM DEPTH OF 0.005"
 - 7) WEIGHT: 1.87 +/- 0.42 LBS
 - 8) MOLD PER DART TOOL DT8567

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3290	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		REPLACEMENT WINDOW ASSEMBLY	1:5
DATE	07.07.24	<small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, IN WHOLE OR IN PART, OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O 66 998

UNDER REVIEW

DEO ATTACHED

RELEASED

07.09.22 #

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D3290	TITLE REPLACEMENT WINDOW ASSEMBLY	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3290-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>q</i>	CHECKED <i>b</i>	MFG. APPR. <i>E</i>	APPROVED <i>MP</i>		DE APPR. <i>##</i>		
DATE 09.09.18	DATE 09.09.18	DATE 09.09.18	DATE 09/09/21		DATE 09/09/21		

PURPOSE:

CHANGE MATERIAL THICKNESS OF D3290-1 FRAME TO 0.063 FROM 0.040. REF PAR 09-033.

CHANGE:

MATERIAL CALL-OUT OF D3290-1 FRAME ON SHEET 1 IS AMENDED AS FOLLOWS:

D3290-1 NOTES

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
 PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
~~(REF. DART SPEC. M6061T6S.040)~~ REF. DART SPEC. M6061T6S.063 (REPLACE)
 OR
 5052-H32 ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
 PER AMS-QQ-A-250/8 OR AMS 4016
~~(REF. DART SPEC. M5052H32S.040)~~ REF. DART SPEC. M5052H32S.063 (REPLACE)

u/b 66298

RELEASED
 2009 -10- 09
MP

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Dart Aerospace Ltd

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